

WHAT IS CLAIMED IS:

1. A fuel cell power generation equipment in which an anode for oxidizing fuel and a cathode for reducing oxygen are formed with an electrolyte membrane in between, and liquid is used as a fuel, wherein one or more air vent holes are provided on a wall surface of a fuel container, multiple unit cells having an electrolyte membrane, an anode and a cathode are mounted on said wall surface of a fuel container, and the unit cells are electrically connected each other.
2. A fuel cell power generation equipment in which an anode for oxidizing fuel and a cathode for reducing oxygen are formed with an electrolyte membrane in between, and liquid is used as a fuel, wherein a liquid fuel holding material is filled in contact with an inner wall surface of a fuel container, one or more air vent holes having a gas/liquid separation function are provided on a wall surface of a fuel container, multiple unit cells having an electrolyte membrane, an anode and a cathode are mounted on said wall surface of a fuel container, and the unit cells are electrically connected each other.
3. A fuel cell power generation equipment in accordance with claim 1 or 2, wherein a diffusion layer is arranged in contact with an anode and/or a cathode electrodes.
4. A fuel cell power generation equipment in accordance with claim 1 or 2, wherein a liquid fuel

holding material filled in a fuel container is in contact with an anode or a diffusion layer in an anode side of multiple unit cells mounted on an outer wall surface of the fuel container.

5. A fuel cell power generation equipment in accordance with claim 1 or 2, wherein a liquid fuel container is composed of an electrically insulating material.

6. A fuel cell power generation equipment in which an anode for oxidizing fuel and a cathode for reducing oxygen are formed with an electrolyte membrane in between, and liquid is used as a fuel, wherein at least one opposing wall surface of a fuel container has multiple air vent holes having a gas/liquid separation function, a liquid fuel holding material is filled on an inner wall surface of the fuel container, multiple unit cells having an anode and a cathode having an electrolyte membrane and a diffusion layer are mounted on an outer wall surface, said diffusion layer is in contact with the liquid fuel holding material, and the unit cells are electrically connected each other.

7. A fuel cell power generation equipment in accordance with claim 6, wherein at least one of the multiple air vent holes has a function of a fuel feeding hole.

8. A fuel cell power generation equipment in accordance with claim 6, wherein an anode for oxidizing fuel and a cathode for reducing oxygen are formed with

an electrolyte membrane in between, and at least an outer wall surface of a fuel container on which fuel cells using liquid as a fuel are mounted is treated for an electrical insulation.

9. A fuel cell power generation equipment in accordance with claim 1, 2 or 6, wherein a fuel is an aqueous methanol solution.

10. A fuel cell power generation equipment in which an anode for oxidizing fuel and a cathode for reducing oxygen are formed with an electrolyte membrane in between, and liquid is used as a fuel, wherein at least one opposing wall surface of a fuel container has multiple air vent holes each having a gas/liquid separation function, a liquid fuel holding material is filled on an inner wall surface of the fuel container, multiple unit cells consisting of an electrolyte membrane, an anode and a cathode having a diffusion layer are mounted on an electrically insulated outer wall surface of said fuel container, the diffusion layer is in contact with the liquid fuel holding material, and the unit cells are electrically connected in series, parallel, or in combination of series and parallel each other.

11. A charger using a fuel cell power generation equipment, wherein an anode oxidizing methanol and a cathode reducing oxygen are formed with an electrolyte membrane in between, at least one opposing wall surface of a fuel container of a fuel cell using liquid as a

fuel has multiple air vent holes each having a gas/liquid separation function, a liquid fuel holding material is filled on an inner wall surface of a fuel container, multiple unit cells consisting of an electrolyte membrane, an anode and a cathode having a diffusion layer are mounted on an electrically insulated outer wall surface of said fuel container, the diffusion layer is in contact with the liquid fuel holding material, and the unit cells are electrically connected in series, parallel, or in combination of series and parallel each other.

12. A portable power source using a fuel cell power generation equipment, wherein an anode oxidizing methanol and a cathode reducing oxygen are formed with an electrolyte membrane in between, at least one opposing wall surface of a fuel container of a fuel cell using liquid as a fuel has multiple air vent holes having a gas/liquid separation function, a liquid fuel holding material is filled on an inner wall surface of a fuel container, multiple unit cells consisting of an electrolyte membrane, an anode and a cathode having a diffusion layer are mounted on an electrically insulated outer wall surface of said fuel container, the diffusion layer is in contact with the liquid fuel holding material, and the unit cells are electrically connected in series, parallel, or in combination of series and parallel each other.

13. A portable electronic device driven by a fuel

cell power generation equipment, wherein an anode oxidizing methanol and a cathode reducing oxygen are formed with an electrolyte membrane in between, at least one opposing wall surface of a fuel container of a fuel cell using liquid as a fuel has multiple air vent holes each having a gas/liquid separation function, a liquid fuel holding material is filled on an inner wall surface of a fuel container, multiple unit cells consisting of an electrolyte membrane, an anode and a cathode having a diffusion layer are mounted on an electrically insulated outer wall surface of said fuel container, the diffusion layer is in contact with the liquid fuel holding material, and the unit cells are electrically connected in series, parallel, or in combination of series and parallel each other.